

AMENDMENTS TO THE CLAIMS

1. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide expressed by the composition formula $A_2B_2O_7$ (where A is an element selected from the group consisting of La, Nd and Sr, and B is an element selected from the group consisting of Ti, Si, Nb and Ta).

2. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide having a K_2NiF_4 structure expressed by the composition formula X_2YO_4 .

3. (Original) A thermal barrier coating material according to claim 2, wherein X of the oxide expressed by said composition formula X_2YO_4 is La or Sr, and Y is Ni or Ti.

4. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide expressed by the composition formula $Sr_3Ti_2O_7$ or $Sr_4Ti_3O_{10}$.

5. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide expressed by the composition formula LaTaO_4 .

6. (Currently Amended) A thermal barrier coating material comprising as a main component, a ceramic composition of a combination of two or more kinds of compositions selected from the oxides as in claim 1 ~~and claim 3 through claim 5~~.

7. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide having an olivine type structure expressed by the composition formula M_2SiO_4 (where M is a divalent metal element).

8. (Original) A thermal barrier coating material according to claim 7, wherein M of the oxide expressed by said composition formula M_2SiO_4 is Mg or Ni.

9. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide having an olivine type structure expressed by the composition formula $(\text{MM}')_2\text{SiO}_4$ (where M, M' are both divalent metal elements).

10. (Original) A thermal barrier coating material according to claim 9, wherein M of the composition formula $(MM')_2SiO_4$ is Mg or Ni, and M' is a metal element selected from the group consisting of Ca, Co, Ni, Fe, and Mn.

11. (Currently Amended) A thermal barrier coating material comprising as a main component, a composition of a combination of a zirconia material and an oxide as in ~~any one of claim 1 through claim 10~~ claim 1.

12. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide containing Nb and either an alkaline earth metal or a rare earth element.

13. (Original) A thermal barrier coating material according to claim 12, wherein said oxide is an oxide selected from the group consisting of $Sr_4Nb_2O_9$, $Sr_5Nb_4O_{15}$, $Ca_2Nb_2O_7$, $YNbO_4$ and $LaNbO_4$.

14. (Original) A thermal barrier coating material according to claim 2, wherein an X of the oxide expressed by said composition formula X_2YO_4 is any one of Pr, Nd and Eu, and Y is Ni.

15. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide expressed by the composition formula $\text{La}_{(1-x)}\text{M}''_x\text{TaO}_4$ (where $0 < x \leq 1$, and M'' is a metal element selected from the group consisting of Al, V, Cr, Fe, Ga, Y, Rh, In, Ce, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb, and Lu).

16. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide containing Ta and an alkaline earth metal.

17. (Original) A thermal barrier coating material according to claim 16, wherein said oxide is $\text{Ca}_4\text{Ta}_2\text{O}_9$ or BaTa_2O_6 .

18. (Currently Amended) A thermal barrier coating material comprising as a main component, a ceramic composition of a combination of oxides of two or more kinds selected from the oxides as in ~~any one of claim 13 to claim 15, and claim 17~~ claim 13.

19. (Original) A thermal barrier coating material comprising as a main component, a ceramic composition of a combination of; oxides of one or more kinds selected from oxides expressed by the composition formulas $\text{A}_2\text{B}_2\text{O}_7$ (where A is an element selected from the group consisting of La, Nd and Sr, and B is an element selected from the group consisting of Ti, Si, Nb and Ta), X_2YO_4 (where X is La or Sr, and Y is Ni or Ti), $\text{Sr}_3\text{Ti}_2\text{O}_7$, $\text{Sr}_4\text{Ti}_3\text{O}_{10}$, and LaTaO_4 , and oxides of one or more kinds selected from oxides expressed by the composition formulas $\text{Sr}_4\text{Nb}_2\text{O}_9$, $\text{Sr}_5\text{Nb}_4\text{O}_{15}$, $\text{Ca}_2\text{Nb}_2\text{O}_7$, YNbO_4 , LaNbO_4 , X_2YO_4 (where X is any one of Pr, Nd and Eu, and Y

is Ni), M''_xTaO_4 (where M'' is a metal element selected from the group consisting of Al, V, Cr, Fe, Ga, Y, Rh, In, Ce, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb, and Lu), $Ca_4Ta_2O_9$ and $BaTa_2O_6$.

20. (Currently Amended) A thermal barrier coating material, comprising as a main component, a composition of a combination of a zirconia material and an oxide as in ~~any one of claim 12 through claim 17~~ claim 12.

21. (Original) A thermal barrier coating material according to claim 1, wherein said oxide is an oxide selected from the group consisting of $Sr_2Nb_{2-x}Ti_xO_7$, and $Sr_2Nb_{2-x}Zr_xO_7$ ($0 < x \leq 2$).

22. (Original) A thermal barrier coating material according to claim 12, wherein said oxide is an oxide selected from the group consisting of $Sr_4Nb_{2-x}Ti_xO_9$, and $Sr_4Nb_{2-x}Zr_xO_9$ ($0 < x \leq 2$).

23. (Original) A thermal barrier coating material according to claim 12, wherein said oxide is an oxide selected from the group consisting of $Ca_{11}Nb_4O_{21}$, La_3NbO_7 , and $DyNbO_4$.

24. (Original) A thermal barrier coating material according to claim 16, wherein said oxide is an oxide selected from the group consisting of $BaTa_{2-x}Ti_xO_6$, and $BaTa_{2-x}Zr_xO_6$ ($0 < x \leq 2$).

25. (Original) A thermal barrier coating material according to claim 2, wherein said oxide is $La_{2-x}Ca_xNiO_4$ ($0 < x \leq 2$).

26. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising an oxide selected from the group consisting of composition formulas SrYb_2O_4 and $\text{Sr}_4\text{Yb}_2\text{O}_9$.

27. (Original) A thermal barrier coating material applicable to a thermal barrier coating for coating the surface of a base metal,

comprising as a main component, an oxide expressed by the composition formula J_6WO_{12} and J_2WO_6 (where J is an element selected from rare earth elements).

28. (Currently Amended) A thermal barrier coating material comprising as a main component, a ceramic composition of a combination of materials of two or more kinds selected from the oxides as in ~~any one of claim 1, claim 3 to claim 5, claim 13 to claim 15, claim 17, and claim 23 to claim 27~~ claim 1.

29. (Currently Amended) A thermal barrier coating material comprising as a main component, a composition of a combination of zirconia material and an oxide as in ~~any one of claim 21 through claim 27, or a ceramic compositions of claim 28~~ claim 21.